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Kansas

Department of Agriculture

Division of Water Resources

2011 Fall Educational Meetings

DWR Water Appropriation Program

DWR Laws, Regulations and Responsibilities

K.S.A. 82a-706

"The Chief Engineer shall enforce and administer the laws of the state pertaining to the beneficial use of water and shall control, conserve, regulate, allot and aid in the distribution of the water resources of the state for the benefits and beneficial uses of all its inhabitants in accordance with the rights of priority of appropriation."

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Fundamental Attributes of a Kansas Water Right

Rate and Quantity
Specific Place of Use
Specific Point of Diversion
Use made of Water
Priority Date

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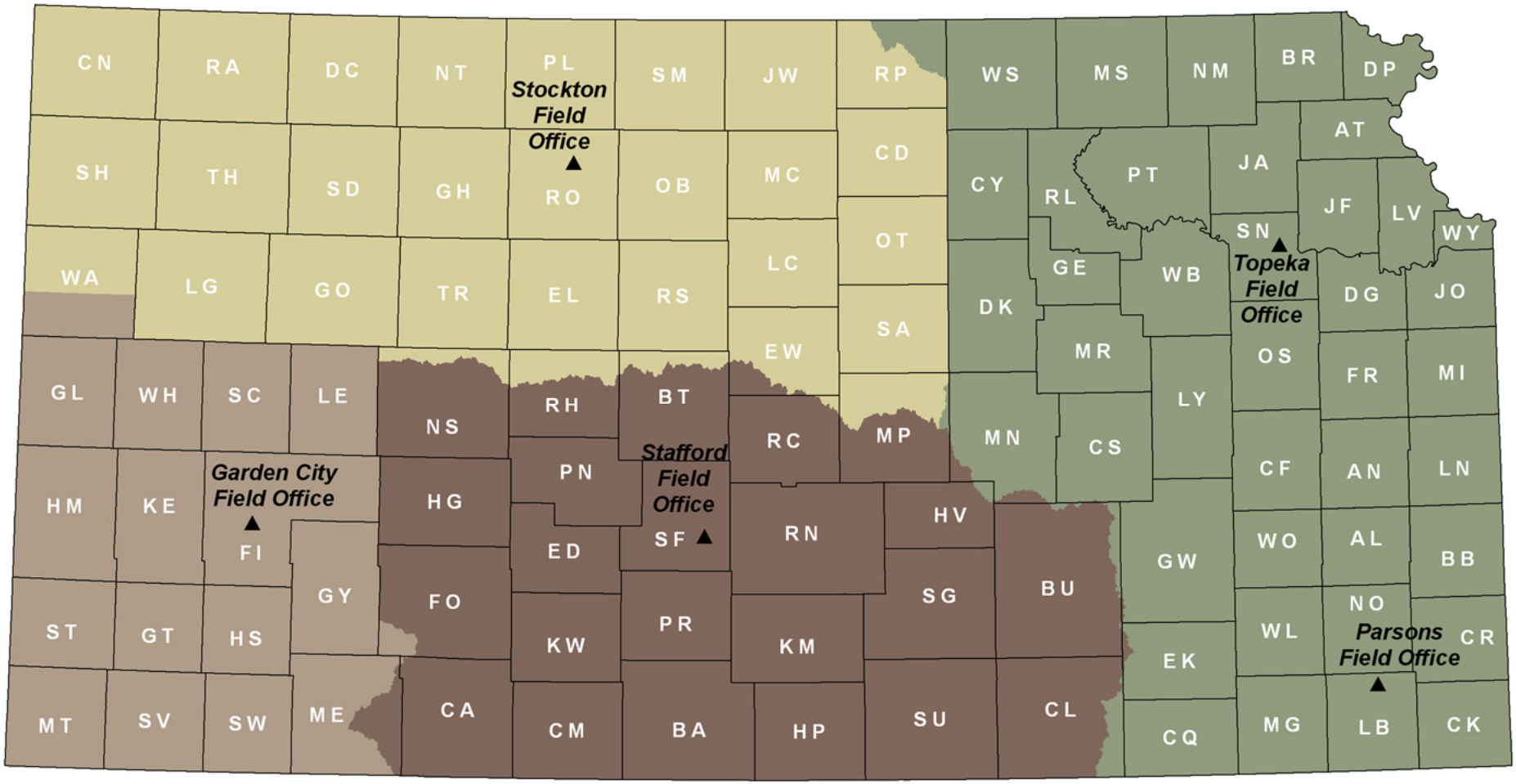
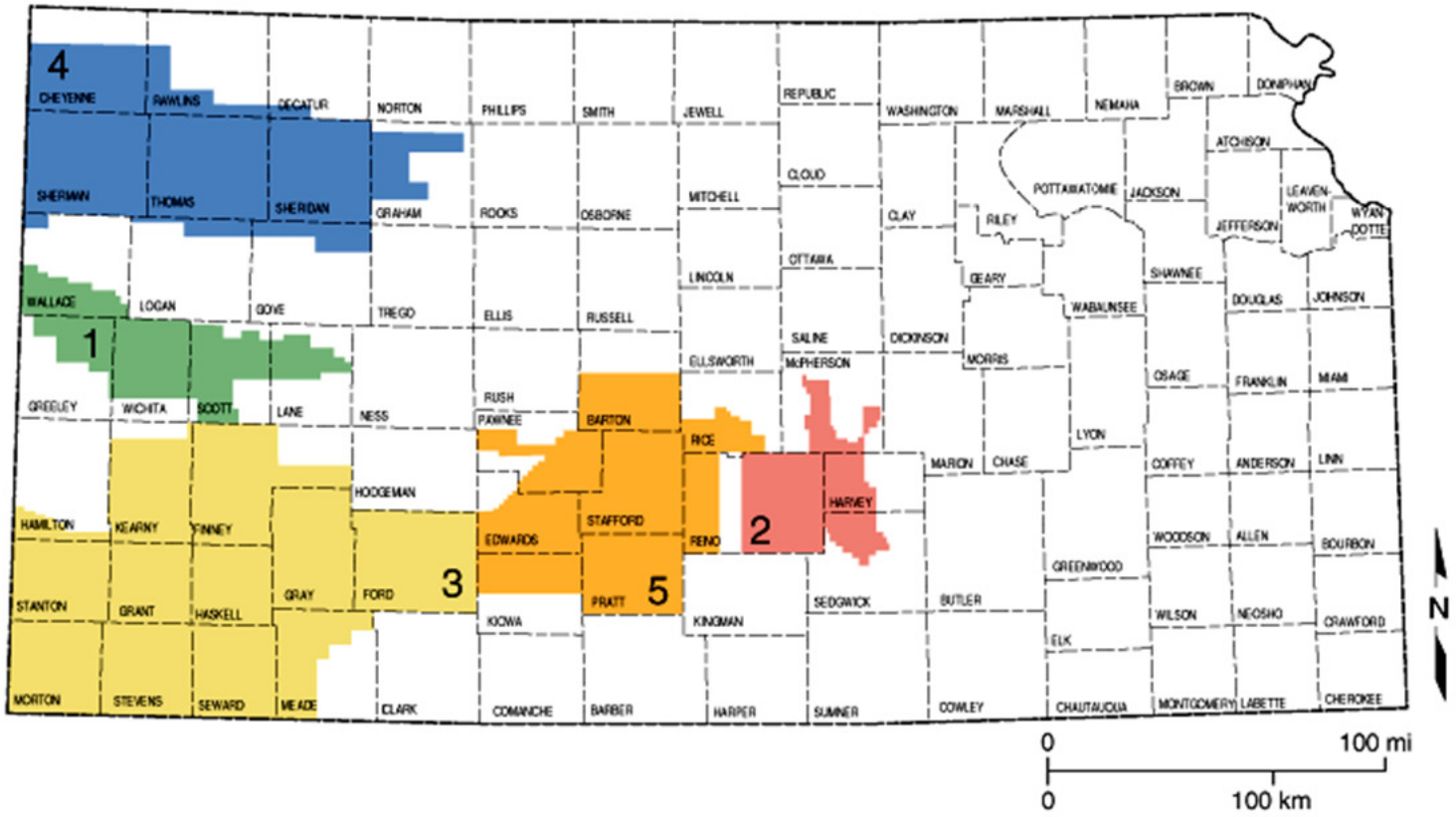
DWR Field Office Locations



GMD Areas in Kansas



Kansas Groundwater Management Districts
Authorized by the KS Groundwater Management District Act

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Kansas Water Appropriation Act

- Based on the "Prior Appropriation Doctrine" used by all western states
- "All water within the state of Kansas is hereby dedicated to the use of the people of the state, subject to the control and regulation of the state in the manner herein prescribed." - K.S.A. 82a-702.(History: L. 1945.)
- All use that had been established before 1945 eligible to be classified as "Vested"
- All water rights established after 1945 are subject to appropriation process

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Prior Appropriation Doctrine

- First in Time – First In Right
- Water is appropriated on a first come – first serve basis.
- Earlier water right holders have priority to use water over later water right holders in times of drought or water shortage
- Kansas system works for both surface water and groundwater

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Water Right Development Process

1. File Application
2. Receive Permit
3. Construct Diversion Works
4. Perfection Period
5. Certificate of Appropriation

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Certification Establishes the Extent of the Water Right Developed

"Water right" means any vested right or appropriation right under which a person may lawfully divert and use water. It is a real property right appurtenant to and severable from the land on or in connection with which the water is used and such water right passes as an appurtenance with a conveyance of the land by deed, lease, mortgage, will, or other voluntary disposal, or by inheritance.

History: L. 1945; amended 1957; amended 1977; amended 1978.

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Changes in Water Rights

- Any owner of a water right may file an application to change the place of use, point of diversion or the use made of the water, without losing priority of water right.
  - Apply in writing
  - Change must be reasonable
  - Must relate to same local source of supply
  - Must be reviewed by DWR

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Changing Water Rights

- Changes can be made to:
  - Point of Diversion
  - Place of Use
  - Use Made of Water

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Changing Water Rights

- Aspects of Water Rights that can't be changed:
  - No Increase in Rate
  - **No Increase in Quantity**
  - Source (Must relate to same local source!)
  - Consumptive Use Must Not Increase

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Annual Water Use Reporting

KSA 82a-732

Meter readings must be reported

- Must be filed by March 1
- Complete and accurate
- On a form prescribed by the Chief Engineer
- Misreporting will be flagged with a notice of non compliance and any falsifying water use will be penalized

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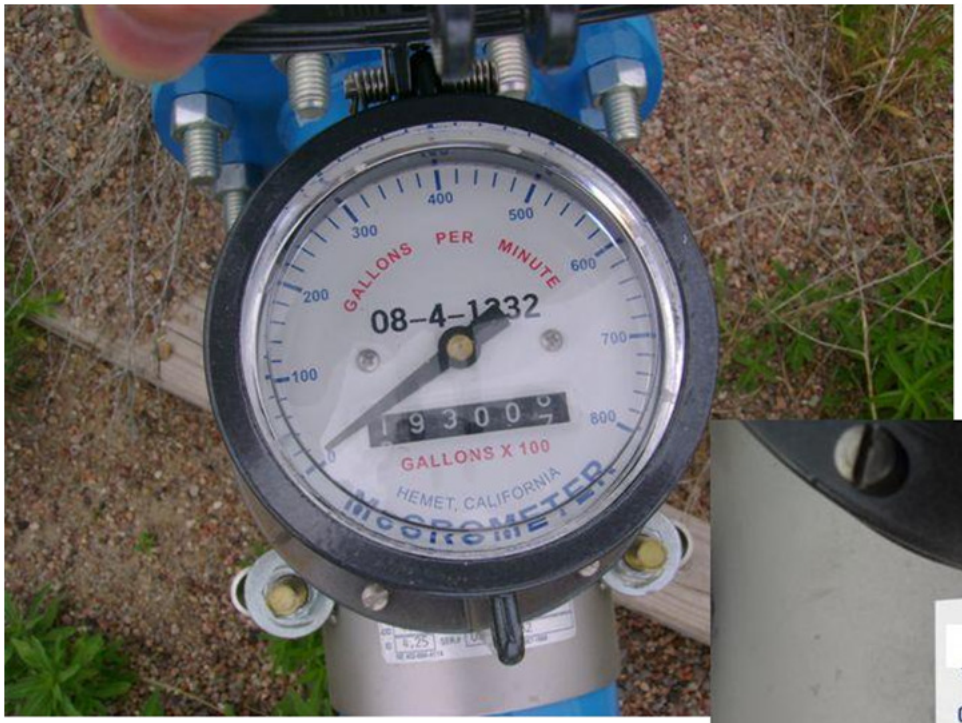
Meter Repairs/Replacement and Reporting



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Enforcement of Over-pumping

- Typical Progression
  - First offense: Notice of Non-Compliance
  - Second offense: $500 fine and 1x water penalty
  - Third offense: $500 per day fine and 2x water penalty
  - Fourth offense: 1-year suspension of authorization to use water
  - Fifth offense: Revoke water right or permit

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Enforcement

- 1x water penalty means that the authorized quantity for the following year is decreased by the same amount over-pumped.
- 2x water penalty means that the authorized quantity for the following year is decreased by twice the amount over-pumped.

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Exceptions

If over-pumping is flagrant, the agency may proceed directly to imposing a stricter penalty without waiting for offenses to be repeated.

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Severe Drought of 2011

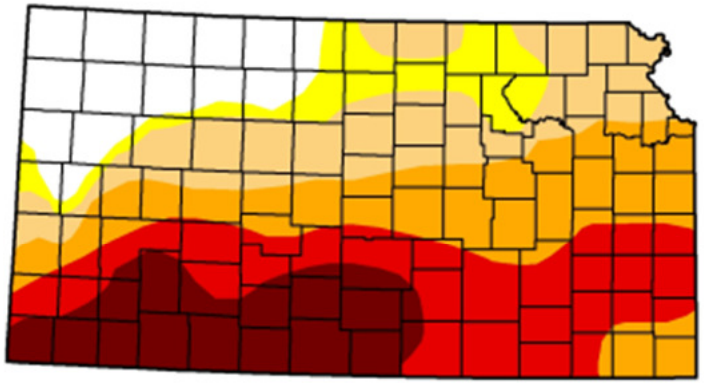
U.S. Drought Monitor

Kansas

November 1, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.39	85.61	77.39	58.19	36.82	15.16
Last Week (10/25/2011 map)	20.45	79.55	66.24	54.87	34.06	15.16
3 Months Ago (08/02/2011 map)	24.54	75.46	66.43	44.81	22.66	14.55
Start of Calendar Year (12/28/2010 map)	17.82	82.18	43.85	3.48	0.00	0.00
Start of Water Year (09/27/2011 map)	16.39	83.61	66.03	48.78	28.54	17.63
One Year Ago (10/26/2010 map)	73.28	26.72	0.00	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu

USDA National Drought Mitigation Center

Released Thursday, November 3, 2011
Brian Fuchs, National Drought Mitigation Center

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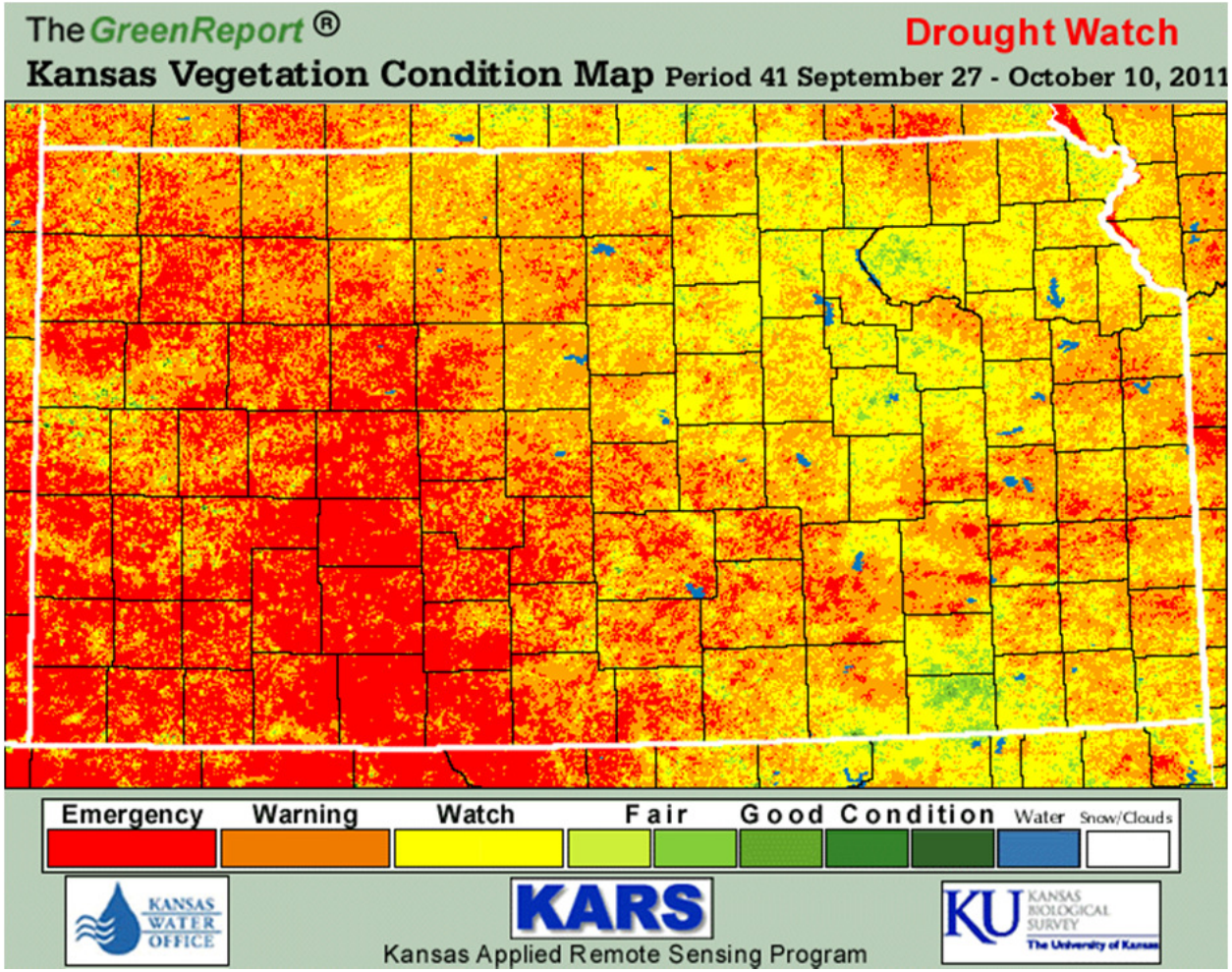
Severe Drought of 2011



"This is the worst map I have ever seen."

John Lomas
Research Analyst
Kansas Applied Remote Sensing Program

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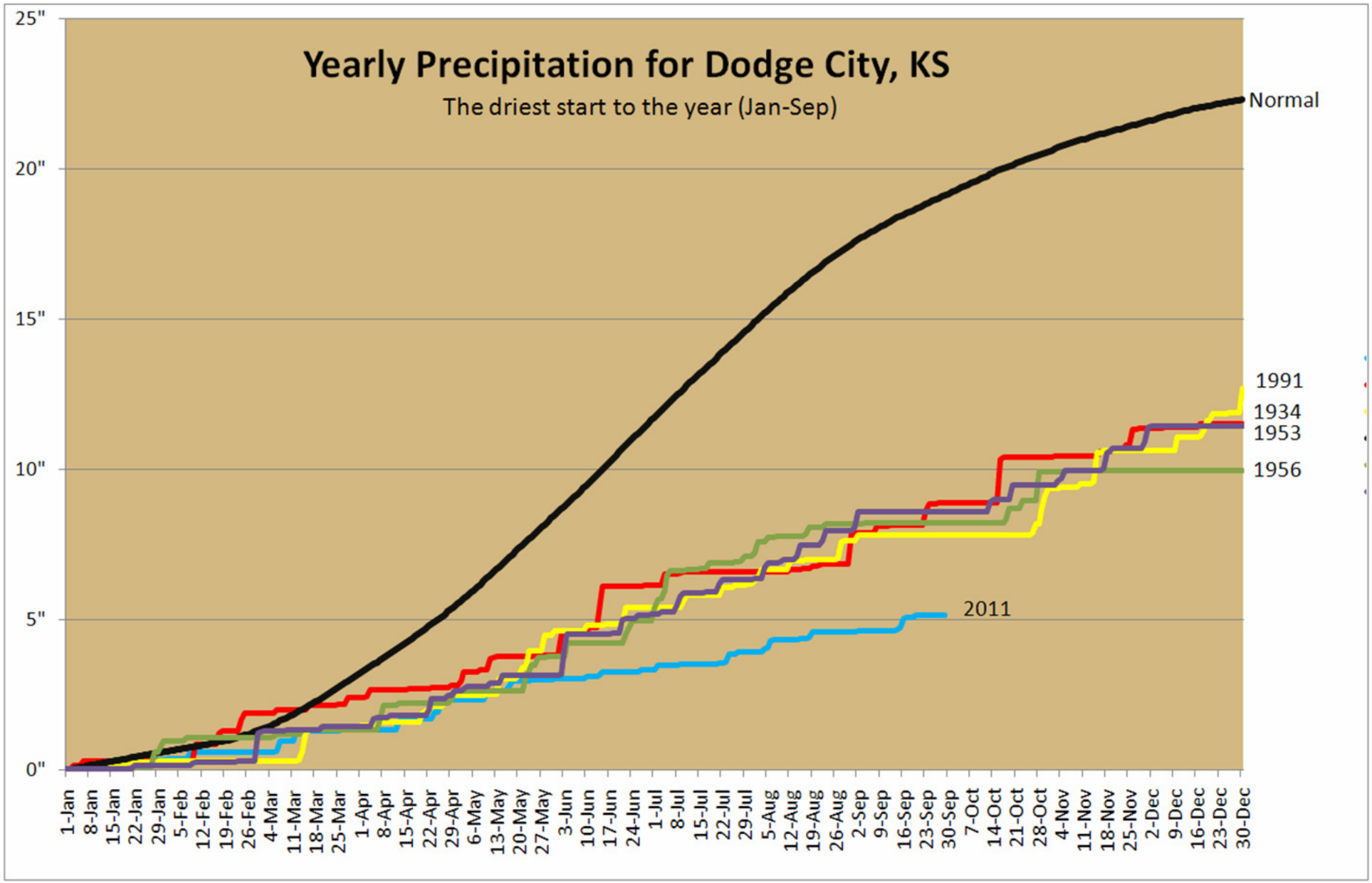
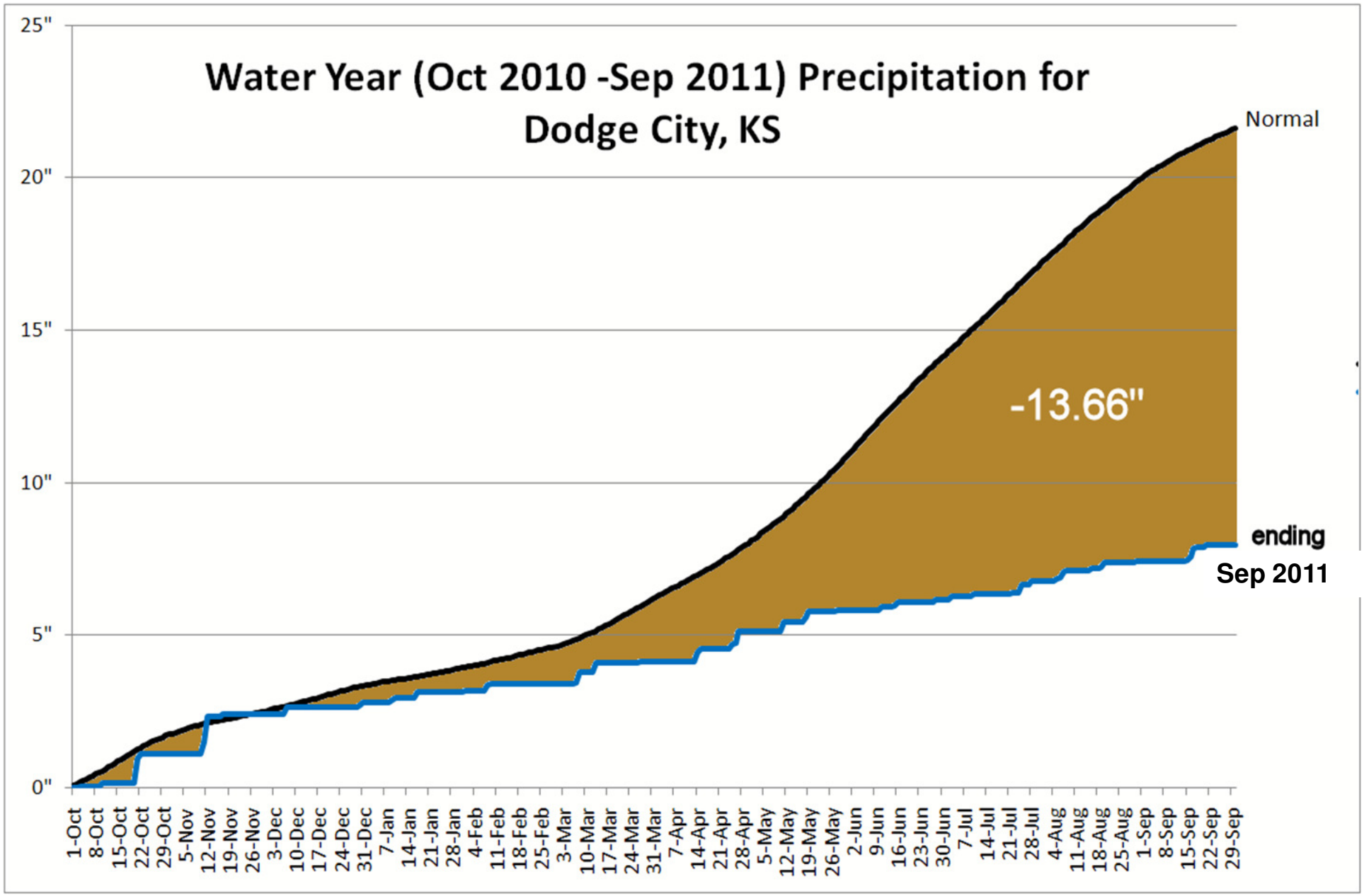
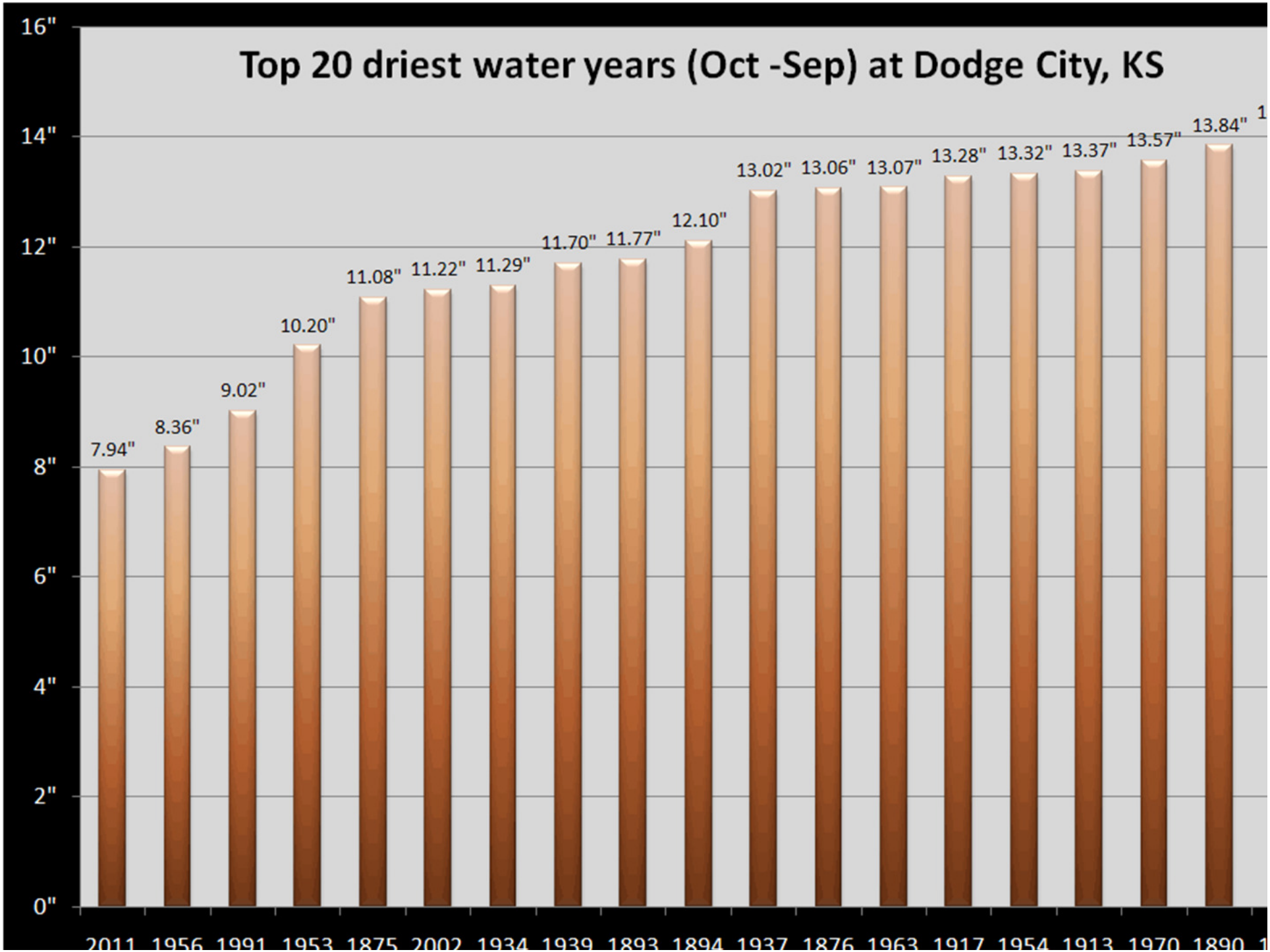

Yearly Precipitation for Dodge City, KS
The driest start to the year (Jan-Sep)
25"
20"
15"
10"
5"
0"
Normal
1991
1934
1953
1956
2011
1-Jan
8-Jan
15-Jan
22-Jan
29-Jan
5-Feb
12-Feb
19-Feb
26-Feb
4-Mar
11-Mar
18-Mar
25-Mar
1-Apr
8-Apr
15-Apr
22-Apr
29-Apr
6-May
13-May
20-May
27-May
3-Jun
10-Jun
17-Jun
24-Jun
1-Jul
8-Jul
15-Jul
22-Jul
29-Jul
5-Aug
12-Aug
19-Aug
26-Aug
2-Sep
9-Sep
16-Sep
23-Sep
30-Sep
7-Oct
14-Oct
21-Oct
28-Oct
4-Nov
11-Nov
18-Nov
25-Nov
2-Dec
9-Dec
16-Dec
23-Dec
30-Dec


Water Year (Oct 2010 -Sep 2011) Precipitation for Dodge City, KS
25"
20"
15"
10"
5"
0"
Normal
-13.66"
ending
Sep 2011
1-Oct
8-Oct
15-Oct
22-Oct
29-Oct
5-Nov
12-Nov
19-Nov
26-Nov
3-Dec
10-Dec
17-Dec
24-Dec
31-Dec
7-Jan
14-Jan
21-Jan
28-Jan
4-Feb
11-Feb
18-Feb
25-Feb
3-Mar
10-Mar
17-Mar
24-Mar
31-Mar
7-Apr
14-Apr
21-Apr
28-Apr
5-May
12-May
19-May
26-May
2-Jun
9-Jun
16-Jun
23-Jun
30-Jun
7-Jul
14-Jul
21-Jul
28-Jul
4-Aug
11-Aug
18-Aug
25-Aug
1-Sep
8-Sep
15-Sep
22-Sep
29-Sep


Top 20 driest water years (Oct -Sep) at Dodge City, KS
16"
14"
12"
10"
8"
6"
4"
2"
0"
7.94"
8.36"
9.02"
10.20"
11.08"
11.22"
11.29"
11.70"
11.77"
12.10"
13.02"
13.06"
13.07"
13.28"
13.32"
13.37"
13.57"
13.84"
2011
1956
1991
1953
1875
2002
1934
1939
1893
1894
1937
1876
1963
1917
1954
1913
1970
1890

Drought Emergency Term Permits

The Chief Engineer offered a one-time sign up for Drought Emergency Term Permits.

- In short these emergency permits suspend your base water right and give a term permit equal to you base quantity x 2. IE 100 Af= 200Af
- For use in 2011 and 2012
- Base Right Is Suspended
- Applications must be filed by December 31, 2011

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Why Drought Term Permits?

- When the significance and persistence of the drought became apparent in late June, Legislators began asking DWR if there were any other options that could be made available to water users
- DWR quickly came up with a plan to implement a program to deal with the drought and the need to pump water in excess of authorized quantities
- Extremely short timeframe for developing policies, forms and implementation

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Why Drought Term Permits?

- Concept nearly identical to the Multi-Year Flex Account (MYFA) with a 2 year term instead of 5 year term.
  - Permit had to be separate from the water right, since quantity can't be increased on an existing file
  - Had to be a type of permit for which DWR already had statutory authority to accept apps, assess an application filing fee and approve
  - Intended to be aquifer neutral

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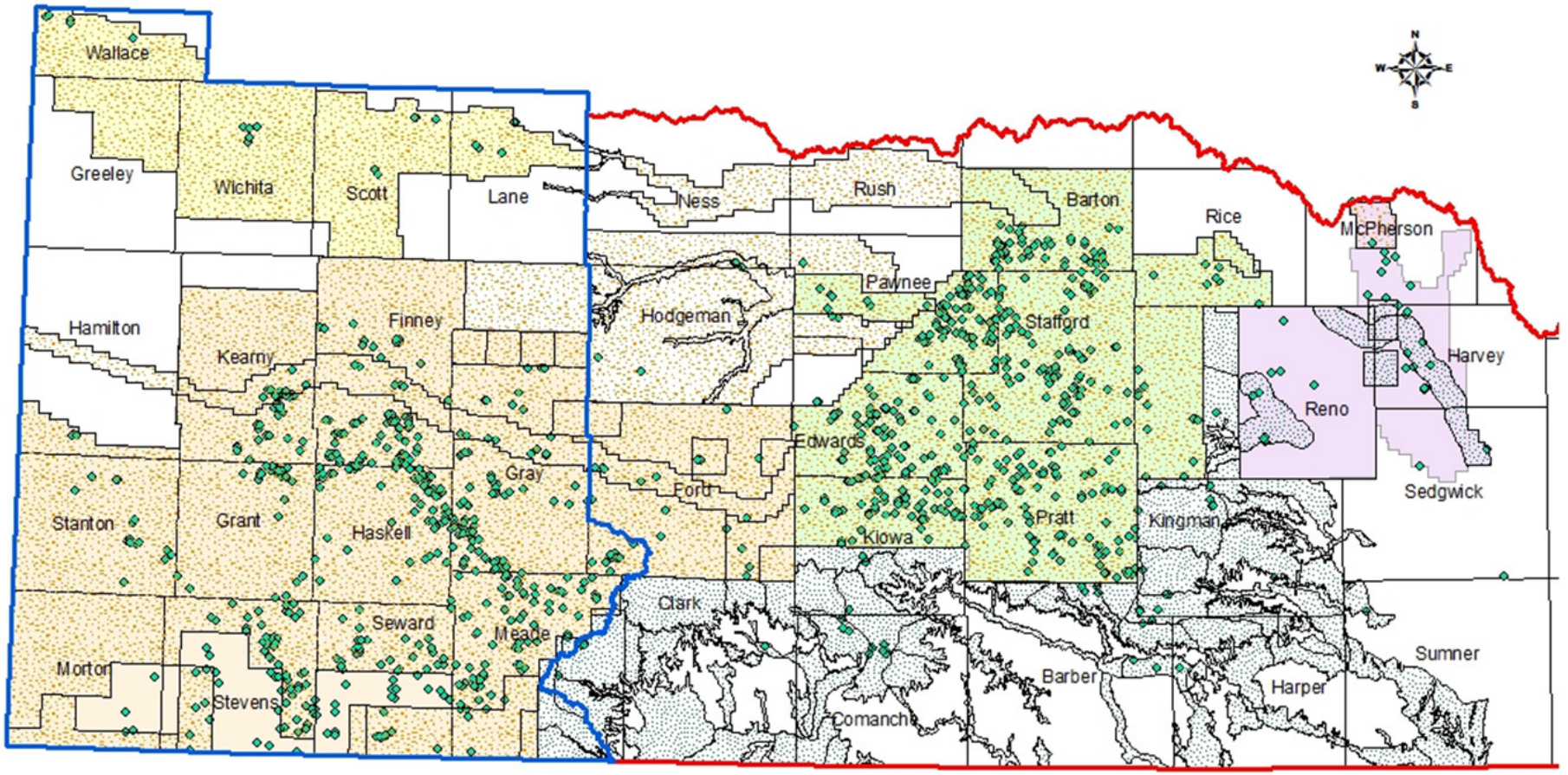
Drought Term Permits within Southwestern and South Central Kansas Closed and Restricted Areas as of November 9, 2011



542 Drought Terms in Garden City Field Office
598 Drought Terms in Stafford Field Office

Drought Term Permits
Garden City Field Office
Stafford Field Office
Closed
Restricted
GMD 1
GMD 2
GMD 3
GMD 5

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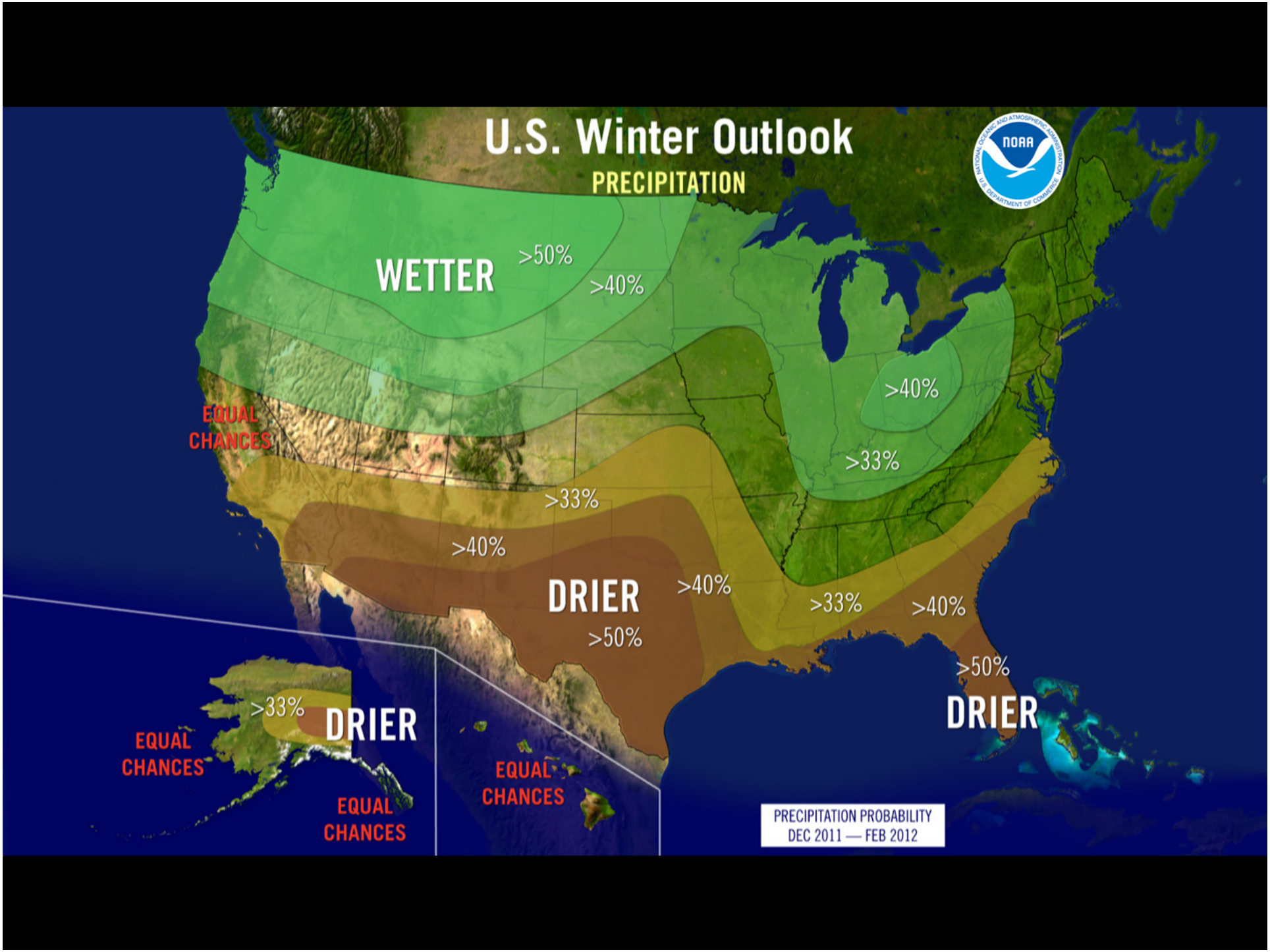
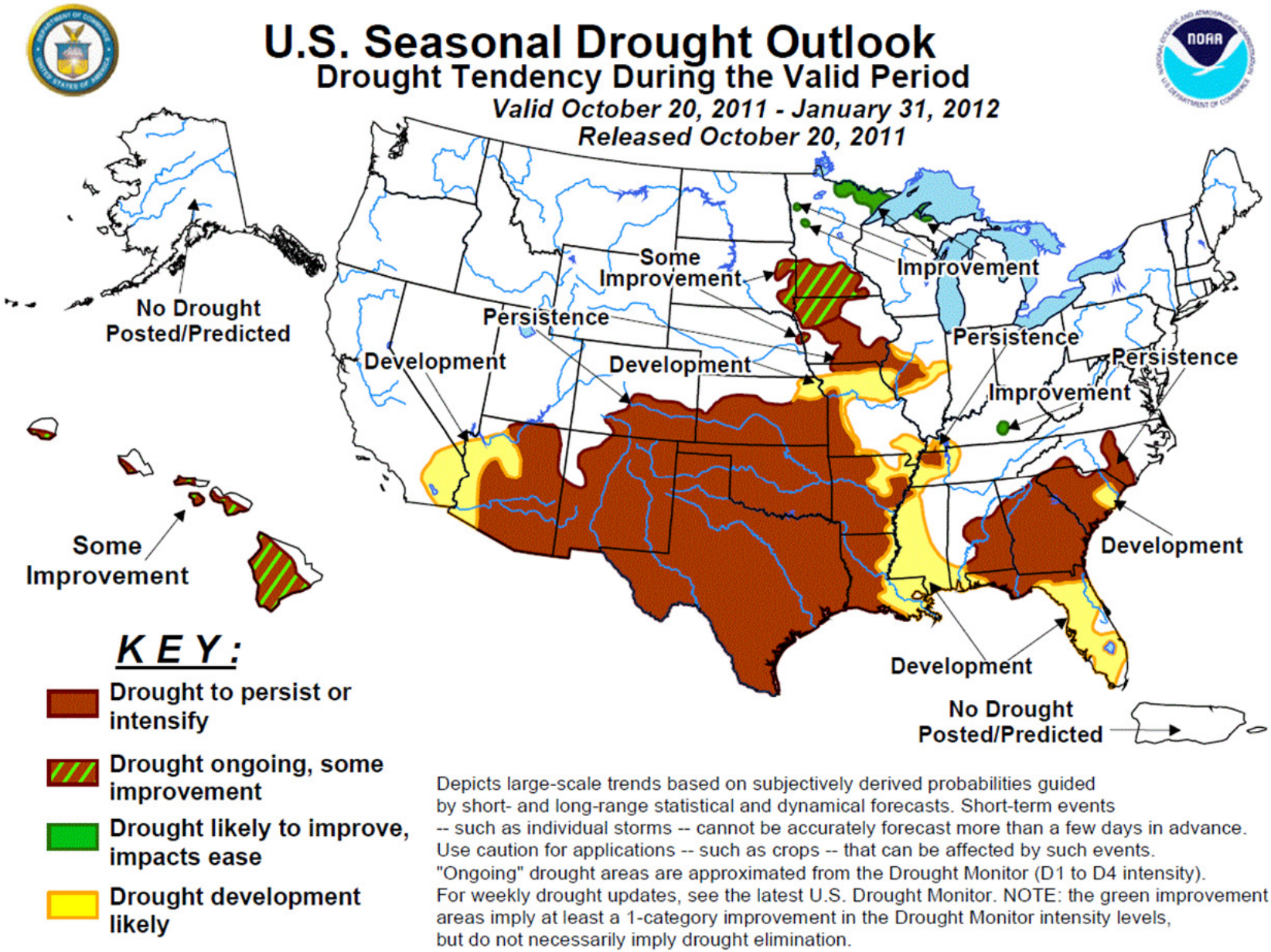
Division of Water Resources
Basin Management Team
November 9, 2011


U.S. Winter Outlook
PRECIPITATION
NOAA
WETTER
>50%
>40%
>40%
>33%
EQUAL CHANCES
>33%
>40%
DRIER
>40%
>33%
>40%
>50%
>50%
DRIER
>33%
DRIER
EQUAL CHANCES
EQUAL CHANCES
EQUAL CHANCES
PRECIPITATION PROBABILITY
DEC 2011 — FEB 2012

"The return of La Niña elevates the chances for persistence across most of the exceptional drought areas of the southern Plains."



Other Option?
Multi-Year Flex Account

- Average Water Use From 2000 to 2009 x 5
- 10% conservation factor
- Example:
  - Average Use 2000-2009 = 100 AF
  - 100 x 5 = 500 AF
  - 500 AF x 10% conservation factor= 50 AF
  - 500 AF- 50 AF= 450 AF
  - 5 year allocation= 450 AF
- If significant water conservation measures were implemented during the period from 2000 to 2009 we can consider years prior to implementation.
- Base water right is suspended
- Term permit carries junior priority

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Flex Account Proposed Changes

Three Option Approach: Must be aquifer neutral and must not increase long-term water use

1. Historic Water Use from 2000 to 2009
   - Current system without a 10% conservation factor
2. Average NIR For the maximum acres reported irrigated during 2000 to 2009
   - Max Reported Acres x Average NIR x 110% / 12”
3. A system promulgated by the Groundwater Management Districts
   - Must be accepted by the chief engineer

Changes require legislative action to implement.

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Examples of MYFA Option 2

Comparison of Proposed Allowable Flex Account NIR to Authorized Quantity and 2000-2009 Average Irrigation Water Use per County

Values are in Acre-Inches per Acre
Allowable Flex Account NIR = 50% Chance Rainfall NIR with 90% Efficiency Factor

Kansas Department of Agriculture
Division of Water Resources
Basin Management Team
October 6, 2011

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Typical MYFA based on 130 historical acres and Average NIR

- Finney County: 872 acre-feet
  - (5 years x 130 acres x **16.1 inches** / 12 inches)
- Pawnee County: 764 acre-feet
  - (5 years x 130 acres x **14.1 inches** / 12 inches)
- Pratt County: 758 acre-feet
  - (5 years x 130 acres **x 14.0 inches** / 12 inches)
- Stevens: 888 acre-feet
  - (5 years x 130 acres x **16.4 inches** / 12 inches)

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Drought Term → MYFA?

- Those with drought emergency term permits will be allowed to convert their drought emergency permit to a multi-year flex account if they also agree to reduce the 5-year flex account by the amount of the 2011 overuse (Aquifer neutral)
- Offers producers greater flexibility in compensating for their 2011 water use overage over the next 5 years

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Questions?

Contact us at:

Garden City Field Office

(620) 276-2901

Stafford Field Office

(620) 234-5311

DWR E-Mail Newsletter: http://www.ksda.gov/dwrcurrents